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Volume-Based Procurement in Mainland China:

Key trends and planning future strategies

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Volume-based procurement is consolidating generic drug procurement and reducing drug prices at the national level

Started as 4+7 pilot program in 11 major cities (4 municipalities [Beijing, Tianjin, Shanghai and Chongqing] and 7 provinces [Chengdu, Xi'an, Shenyang, Dalian, Xiamen, Guangzhou and Shenzen]), and later was extended to the national level.

Parameters	4+7 Program	VBP Round 1	VBP Round 2	VBP Round 3	VBP Round 4
Tender date	December 8, 2018	September 24, 2019	January 17, 2020	August 20, 2020	February 04, 2021
Product negotiated	**25** products (only GQCE-passed)	Drugs included in the 4+7 program	**32** products (non-NRDL / GQCE-approved drugs)	**55** products (non-NRDL / GQCE-approved drugs)	**45** products (non-NRDL / GQCE-approved drugs)
Geographic scope	4 municipalities and 7 provinces	National[1]	National	National	National
Procurement contract duration	12 months	≤ 2 bid winners: 1 year 3 bid winners: 2 years	1 winner: 1 year 2-3 winners: 2 years ≥ 4 winners: 3 years	1 or 2 winners: 1 year 3 winners: 2 years ≥ 4 winners: 3 years	1 or 2 winners: 1 year 3 winners: 2 years ≥ 4 winners: 3 years
Output					
Average price reductions	**52%**	**59%**	**53%**	**72%**	**65.4%**
Total value of procurement	$0.3 billion	$0.6 billion	$1.3 billion	$2.2 billion	$3.6 billion
Total volumes[2]	1.6 billion	4.6 billion	12.4 billion	15.2 billion	6.8 billion

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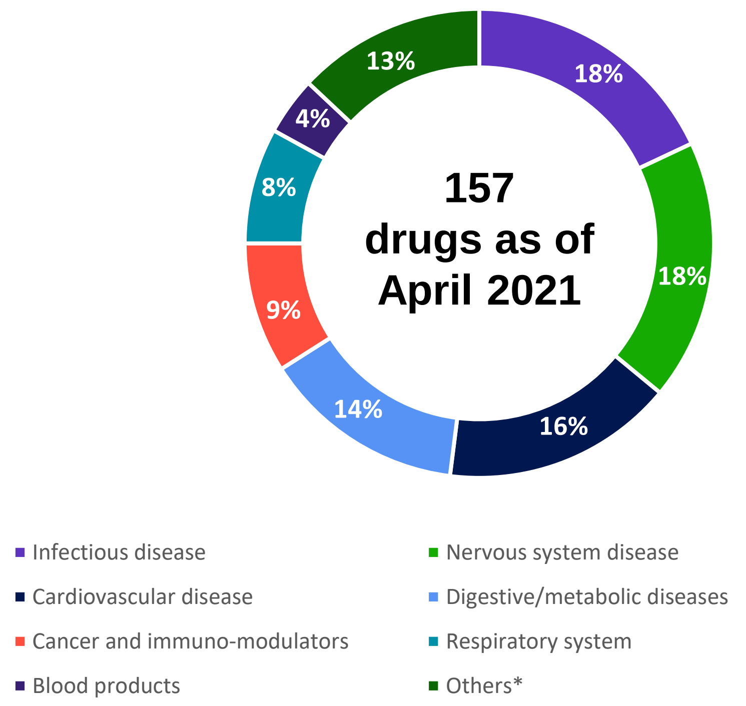
Infectious disease and nervous system therapies comprise most of the drugs contracted through VBP

Overview of drugs negotiated successfully, by therapeutic area



Domestically-developed drugs continue to dominate the VBP programs as domestic companies offer high price cuts

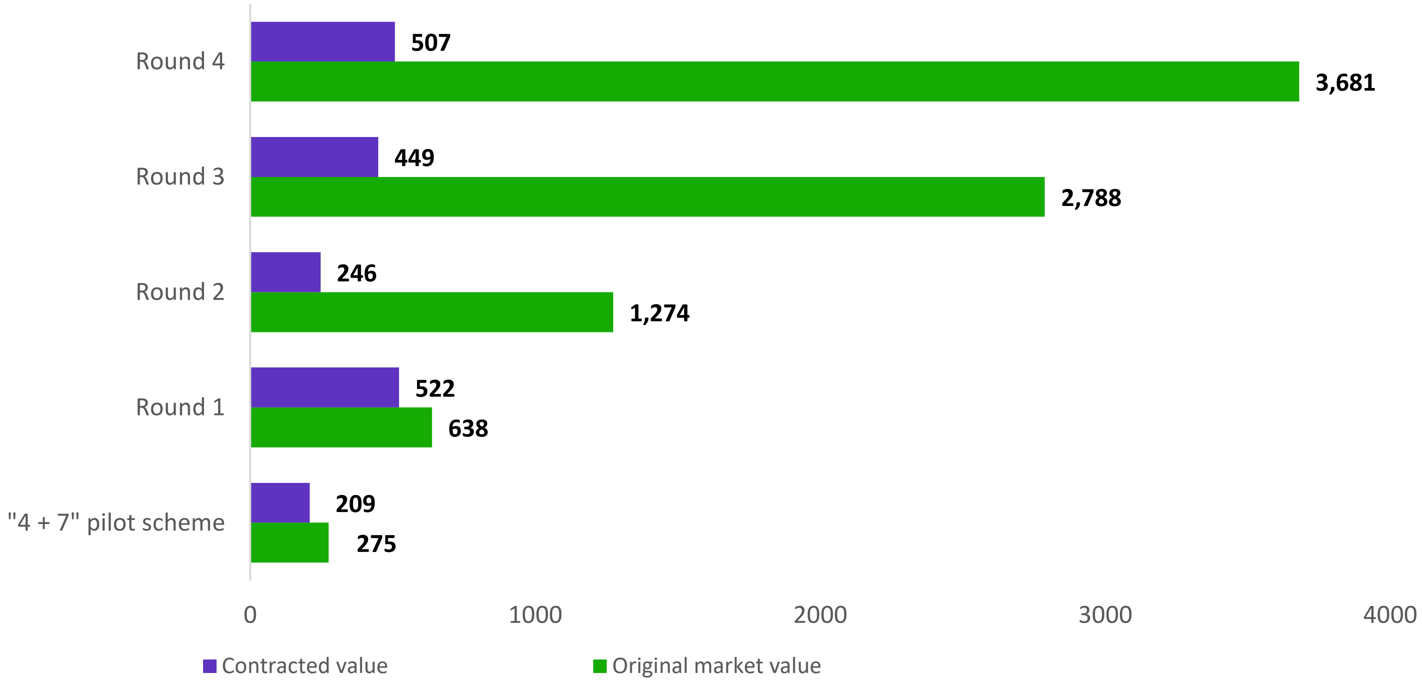
VBP Round	Number of winning bids		
	Import drugs		Domestic drugs
	Off-patent brands	Generics	
"4 + 7" pilot scheme	2	0	23
Round 1	6	2	51
Round 2	4	1	96
Round 3	3	0	188
Round 4	3	2	153

With uniform pricing across the nation, both domestic players and multinational companies have now been offered a common platform to participate and sell drugs to public medical institutions.

Source: GBI analysis, Clarivate

Substantial healthcare savings through rounds one - four; however, extreme price reductions likely to lead to supply disruptions

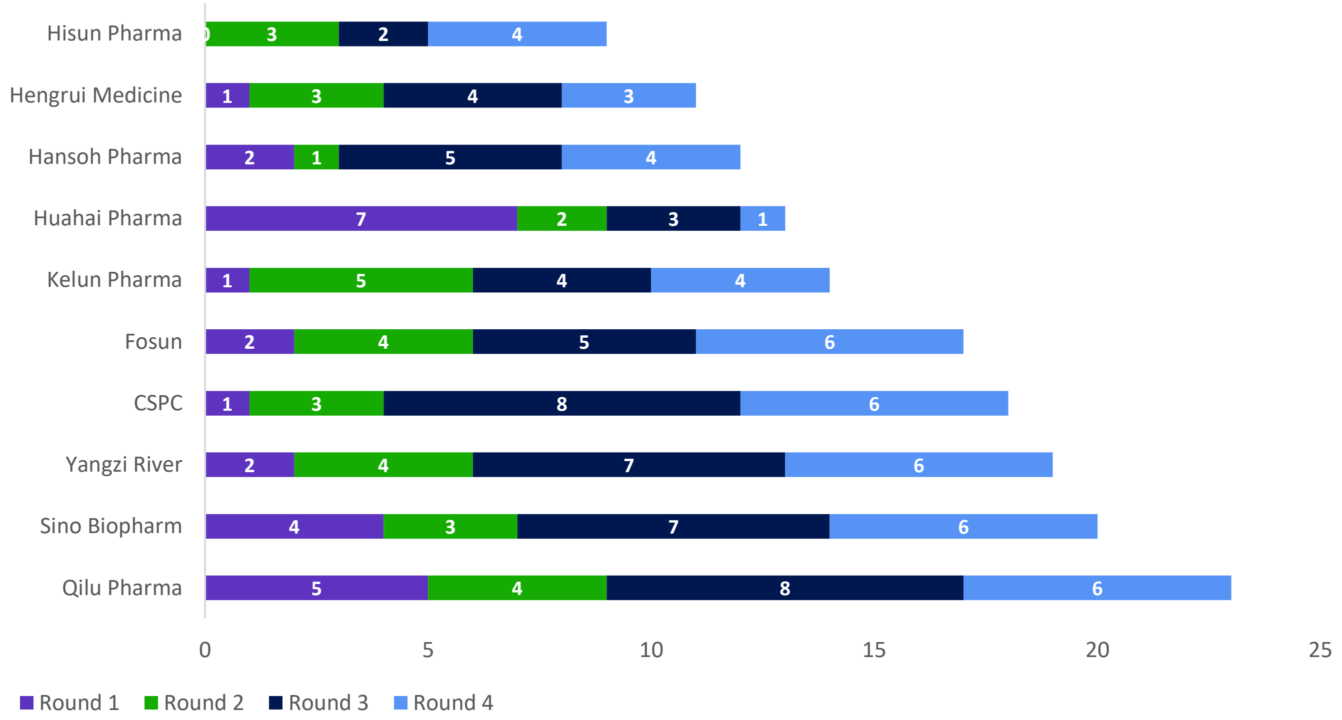
Contracted value of VBP rounds (USD million)



- With estimated savings of $2 billion in healthcare spending through VBP, the Chinese government is expected to channelize bulk of this healthcare spending towards other key initiatives such as the NRDL.
- This lowers the healthcare cost for the government and reduces the strain on the country's GDP.

Qilu Pharma remains at the top with most winning bids; MNCs remain less visible

Top 10 companies by VBP winning bids



- The VBP has prompted a sharp decline in prices of generic drugs, which in turn has led to considerable pricing pressure and diminishing profit margins for the concerned companies.
- Several MNCs have reported a decline in revenues for their products included in the VBP. Some of the companies are doubtful of their plans for participation in future VBP programs.

Source: GBI analysis, Clarivate

The early wave of reforms for the generic drug sector is yielding benefits but also raising profitability concerns for manufacturers

Bayer: 40% increase in volume sales of Glucobay after VBP inclusion; possible return to positive sales performance in future.

Glucobay accounts for approximately 95% of Bayer's global acarbose sales; VBP inclusion was paramount to garner volume sales.

Sanofi 7.7% decline in overall sales; Plavix and CoAprovel sales declined by 52.5% and 33.4%, respectively

Bayer: Unit sales of Avelox declined 8.8%

Pfizer: Net loss in revenue after VBP inclusion of Zyvox (linezolid)

AstraZeneca: Negative sales for Iressa (gefitinib)

Eliminating drug manufacturers with uncertified generics

Most small-sized companies are struggling to gain GQCE certification, which led to the decline in total number of generic drug manufacturers from more than 5,000 in 2015 to 4,300 in 2018.

Significant reduction in overall healthcare cost

The Chinese Government has saved an estimated $1.5 billion in healthcare spending following the third VBP round in August 2020.

Greater visibility of highly genericized therapeutic segments

40% of the total VBP drugs are from anti-infective and cardiovascular therapies.

MNCs de-prioritize VBP due to reduced profitability

Bayer, Sanofi, Novartis and Pfizer reported declining revenues for the VBP products, affecting profit margins for these firms.

Fear of long-term survival among domestic firms

Reduced profitability will hinder domestic firms to optimally invest in R&D. Companies losing bids may find it hard to sustain through retail channels only.

Unclear roadmap

Recently, VBP reform has been split into provincial and national VBP, which may lead to confusion around the drug's accessibility from province to province.

Source: GBI analysis, Clarivate

Biosimilars of insulin and monoclonal antibodies are expected to feature in future VBP updates as authorities shift focus towards biologics

Potential entries for VBP	Therapy area
Insulins (detemir, degludec, glargine, aspart, lispro)	Digestive / metabolic diseases
IgG1 monoclonal antibodies (such as trastuzumab)	Oncology
Anti-CD20 monoclonal antibodies (such as rituximab)	Oncology, Immunology
VEGF inhibitors (such as bevacizumab)	Oncology

- The authorities are planned to expand VBP to include as many as 500 molecules that have high quality GQCE-certified generics available in Mainland China. Round five of VBP, expected to take effect in June 2021, will include 58 molecules–the highest in any VBP round so far–and will include 12 digestive tract and metabolic disease therapies, 9 systemic anti-infectives and 8 immunomodulators.
- MNCs make up most of the companies that lose out on bids in the VBP or prefer not to participate in the tendering process. Most of these MNCs will continue to focus on maximizing their product sales based on patient loyalty, especially in non-hospital channels.
- Up to eight tender winners in a VBP round are allowed to supply up to 80% of the public hospital network in Mainland China, leaving only 20% of the entire network for non-winners. Based on experience of previous VBP rounds, MNC participation continues to decrease as they prefer to offer premium pricing and cater to the available 20% market, rather than compete with local generic firms by offering steep price cuts.

Source: GBI analysis, Clarivate

Reforms will allow Mainland China to achieve its objective of high quality and affordable healthcare for its citizens

- Robust access and reimbursement environment
- Uniform pricing across the nation
- High quality and certified generic drugs of international standard
- Elimination of bureaucracy and corruption
- Increasing push for innovation in Mainland China
- Rising focus on high performing off-patent molecules
- Success of GQCE and VBP – benchmarks for future national access and reimbursement reforms
- Less expensive drugs for patients and lower healthcare costs for the government

Both domestic and MNC players are considering robust strategies to survive in this highly competitive market space

Boost R&D and manufacturing capabilities to foster innovation and develop high quality generics while maintaining low manufacturing cost.

With guaranteed volume-based contracts, ***realign the sales force model*** to maximize the profit margins.

Adapt omnichannel strategy to also focus marketing efforts on non-hospital channels such as retail, direct-to-patient and online pharmacies.

Leverage past experiences to cash-in the $90 billion segment with the extension of GQCE and VBP program to injectables.

Penetrate untapped rural retail pharmacy markets that present a potential opportunity for MNCs as healthcare goes digital.

China In-Depth

Insights provided in this article were developed by Clarivate analysts, using data and analysis from China In-Depth, which covers patient populations, access and reimbursement environment, treatment paradigms, pipelines and drug-level forecasts.

Gain access to intelligence on Mainland China's healthcare market and disease-specific trends here.